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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/692,395	10/23/2003	Robert C. Gibson	27581/99795A	8462

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EXAMINER

MCANULTY, TIMOTHY P

ART UNIT	PAPER NUMBER
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3682

DATE MAILED: 12/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/692,395

Applicant(s)

GIBSON ET AL.

Examiner

Timothy P McAnulty

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 October 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 1-8 and 19-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2/21/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The preliminary amendment filed 23 October 2003 (as included on page 3 of the transmittal form) does not conform to the revised amendment practice per 37 CFR 1.121. See 68 Fed. Reg. 38611 (June 30, 2003). Such revised amendment practice requires that each amendment that includes changes to an existing claim, cancellation of a claim or submission of a new claim, must include a complete listing of all claims in the application including the status of each claim indicated in a parenthetical expression. As such, the preliminary amendment filed 23 October 2003 is not accepted. Since prosecution as commenced on this application and since applicant is fully responsive in the response mailed 04 October 2004 to the restriction requirement mailed 06 September 2004, the preliminary amendment filed 23 October 2003 is hereby not entered.

Election/Restrictions

2. Applicant's election of group II in the reply filed on 04 October 2004 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).
3. Claims 1-8 and 19-21 withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 04 October 2004.

Drawings

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the fuel injection pump as claimed in claim 18 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 9-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Torii et al. in view of Imamura.

Torii et al. discloses in figures 1 and 4, a gear train comprising an output gear 28 mounted on an output gear shaft; an output pulley 28a mounted on an output pulley shaft; a first idler gear 26; a second idler gear 30 mounted on a second idler gear shaft; a second idler pulley 30a mounted on a second idler pulley shaft; wherein said first idler pulley is mounted between and enmeshed with said output gear and said second idler gear; an endless belt 32; and a tensioner 36 having a tensioner pulley. Torii et al. does not disclose said output pulley shaft connected to said output gear shaft or said second idler pulley shaft connected to said second idler gear shaft by way of a spline connection. However, Imamura teaches in figure 2, a lubricated spline connection 55 between a first shaft 33 and a second shaft 14. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Torii et al. in view of the teachings of Imamura to include a lubricated spline connection between said output pulley shaft and said output gear shaft and between said second idler pulley shaft and said second idler gear shaft, respectfully, so as to provide adjustable yet durable connections therebetween.

7. Claims 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Torii et al. in view of Imamura as applied to claims 9-14 above and further in view of Spittstoesser et al.

Torii et al. in view of Imamura discloses the basic apparatus as set forth above but does not disclose said tensioner having a tensioner arm connected to a shield or said tensioner including a jack screw. However, Splittstoesser et al. teaches in figure 2 a tensioner 48 for an

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endless member 32 wrapped between a first pulley and a second pulley comprising a tensioner pulley 54, a tensioner arm 52, a shield 16 and a jack screw 68; wherein said tensioner arm is connected to a pulley 34 (via arm 36) and to said shield (via a spring 56, see figure 2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Torii et al. in view of the teachings of Splittstoesser to provide said tensioner with a tensioner arm mounted to a shield and a jack screw so as to enable adjustment of said tension applied to said endless belt so as to enable said gear train to be adapted to different operating conditions or wear of said endless belt.

8. Claims 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wieland in view of Imamura.

Wieland discloses in figure 1, a gear train comprising an output gear 8 mounted on an output gear shaft; an output pulley 20 mounted on an output pulley shaft; a second idler gear 2 mounted on a second idler gear shaft; a second idler pulley 19 mounted on a second idler pulley shaft; a first idler gear 5; and an endless belt 21. Wieland does not disclose said output pulley shaft connected to said output gear shaft or said second idler pulley shaft connected to said second idler gear shaft by way of a spline connection. However, Imamura teaches in figure 2, a lubricated spline connection 55 between a first shaft 33 and a second shaft 14. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Torii et al. in view of the teachings of Imamura to include a lubricated spline connection between said output pulley shaft and said output gear shaft and between said second idler pulley shaft and said second idler gear shaft, respectfully, so as to provide adjustable yet durable connections therebetween.

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9. Claims 13-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wieland in view of Imamura as applied to claims 9-12 above and further in view of Splittstoesser et al.

Wieland in view of Imamura discloses the basic apparatus as set forth above but does not disclose said tensioner having a tensioner arm connected to a shield or said tensioner including a jack screw. However, Splittstoesser et al. teaches in figure 2 a tensioner 48 for an endless member 32 wrapped between a first pulley and a second pulley comprising a tensioner pulley 54, a tensioner arm 52, a shield 16 and a jack screw 68; wherein said tensioner arm is connected to a pulley 34 (via arm 36) and to said shield (via a spring 56, see figure 2). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Wieland in view of the teachings of Splittstoesser to provide a tensioner with a tensioner arm mounted to a shield and a jack screw so as to enable adjustment of said tension applied to said endless belt so as to enable said gear train to be adapted to different operating conditions or wear of said endless belt.

10. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wieland in view of Imamura as applied to claims 9-12 above and further in view of Bury.

Wieland in view of Imamura discloses the basic apparatus but does not disclose said output gear connected to a fuel injection pump. However, Bury teaches in the Figure a fuel injection pump 19 driven by an output gear 17 enmeshed with an idler gear 15. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Wieland in view of the teachings of Bury that it is old and well known in the art to drive a fuel injection pump with a gear train and furthermore, backlash is an inherent

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characteristic of any gear train and it is obvious to one of ordinary skill in the gearing art to be motivated to reduce backlash.


Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy P McAnulty whose telephone number is 703.308.8684. The examiner can normally be reached on Monday-Friday (7:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bucci can be reached on 703.308.3668. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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